April 15, 1998

RE: RCRA Air Emissions Methods Seminar

The United States Environmental Protection Agency (EPA) is conducting four seminars on methods associated with the RCRA Subpart CC-Air Emissions Rule in New York State. The seminars are scheduled for April 23, 1998 from 8:30 am to 4:30 pm at the El San Juan Hotel and Casino, Isla Verde Avenue, Road #187, Carolina, Puerto Rico 00979., May 12, 1998 from 8:30 am to 4:30 pm at the Holiday Inn – Princeton, 4355 Route 1 at Ridge Road, Princeton, New Jersey 08540, May 15, 1998 from 8:30 am to 4:30 pm at the EPA Edison NJ facilities, 2890 Woodbridge Avenue, Building 205, Edison, New Jersey 08837, and May 28, 1998 from 8:30 am to 4:30 pm at the EPA Region 2 facilities, 290 Broadway, 27th Floor, Room 27A, New York, New York 10007-1866.

Air emissions from hazardous waste management facilities pose a threat to human health and the environment. The chemicals processed during waste management operations can volatilize into the atmosphere and cause carcinogenic and other toxic effects or contribute to ozone formation. Regulations have been developed to control air emissions from these operations. The EPA has promulgated standards under the authority of Section 3004 of the Hazardous and Solid Waste Amendments (HSWA) to the Resource Conservation & Recovery Act (RCRA). In June 1990, EPA promulgated standards for process vents and equipment leaks that limit organic emissions from waste management units at Treatment, Storage and Disposal facilities (TSDFs) requiring a permit under Subtitle C of RCRA. Additional RCRA standards were promulgated on December 6, 1994 (effective on December 8, 1996) limiting air emissions from tanks, surface impoundments, and containers used in managing hazardous waste at TSDFs and Large Quantity Generators(LQGs).

The major focus of these seminars will be on the various methods sited in the provisions of the rules that are associated with applicability determinations, control requirement specifications, and compliance determinations. Presentations and case studies will be used to examine the test methods. Speakers will include developers of the regulations.

No fee is charged for these seminars. However, registration is limited to the first 75 persons at each location. Persons will be selected on a first-come, first served basis. To register for these seminars, please call Donna C. Colville at 919-990-8644 or Abdool Jabar at 212-637-4131. You can also fax your registration to Ms. Colville at 919-990-8600 or Mr. Jabar at 212-637-4949. Please indicate which seminar you would like to attend.

Sincerely yours

Abdool H. Jabar, Coordinator
RCRA Air Emissions Method Seminars

To: Abdool Jabar or Donna C. Colville Fax Number 919 990 8600

RCRA AIR EMISSIONS METHODS SEMINAR REGISTRATION FORM

The following person(s) are attending the seminar in:

- ☐ San Juan, Puerto Rico on April 23, 1998
- ☐ Princeton, New Jersey on May 12, 1998
- ☐ Edison, New Jersey on May 15, 1998
- ☐ New York, New York on May 28, 1998

Name: _____

Title: _____

Organization: _____

Address: _____

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Telephone: _____

Facsimile: _____

E-mail _____

Name: _____

Title: _____

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E-mail _____

Seminar of RCRA Air Rule Test Methods

I. Introduction – RCRA Air Rule Requirements **[60]**

A. Subpart AA
B. Subpart BB
C. Subpart CC
D. The December 8, 1997 FR Notice

II. Volatile Organic Concentration

A. Subpart CC Waste Determination/Sampling Requirements **[20]**

In the subpart CC RCRA air rules, the volatile organic (VO) concentration of a waste either at its point of waste origination or its point of treatment plays an important role in determining if air emission controls are required. In this session, the rule provisions that require a waste determination will be summarized. In addition, the technical criteria that must be followed in making a waste determination using direct measurement will be explained. Requirements for both sampling and averaging period will be reviewed for both continuous and batch situations.

B. Method 25D **[20]**

The EPA developed Method 25D to provide a relative measure of potential for specific volatile organic (VO) compounds to be emitted from waste materials. Method 25D served as the basis for the subpart CC rulemaking. This section provides information about the test method. The discussion provides a basic understanding of the method protocol and the equipment needed to conduct the analysis.

C. Other EPA Methods: **[45]**

Method 624
Method 625
Method 1624
Method 1625
Method 8260
Method 8270

After extensive review, the EPA decided that alternatives to using Method 25D for direct measurement of VO concentration were appropriate. Various EPA test methods developed for use in measuring the concentration of organics in wastes and wastewaters have now been allowed. The objective of this session is to familiarize the audience with the six EPA methods that are allowed for use in direct measurement of VO concentration and provide a basic understanding of the methods, their advantages, disadvantages, and limitations.

D. Use of Other EPA Methods **[15]**
- Alternative Test Procedure
- Alternative Validation Procedure

Each of the analytical methods listed as approved for subpart CC has an associated list of approved chemical compounds for which EPA considers the method appropriate for measurement. If an owner or operator uses one of these EPA methods to analyze one or more compounds that are not on that method's published list, the alternative test procedure contained in 40 CFR 136.4 and 136.5 must be followed.

Also, if the owner or operator wished to use any other EPA standard method, other than those listed, the method must be validated in accordance with the Alternative Validation Procedure for EPA Waste and Wastewater Methods in 40 CFR part 63, appendix D. This session will provide a brief summary of these alternative procedures.

E. Use of Non-EPA Methods **[10]**
- Method 301 Protocol

An analytical procedure that is not an EPA method may be used to make a waste determination if it has been validated. This validation must be conducted in accordance with the procedures specified in Method 301 of 40 CFR part 63, appendix A, in Section 5.1 or Section 5.3, and the corresponding calculations in Section 6.1 or Section 6.3. This session will provide a brief summary of this alternative procedure for validating analytical procedures that are not EPA methods.

F. Method 25D Correction Factors **[15]**

The Subpart CC waste determination provisions provide two applications for which Method 25D correction factors are used: 1) measured VO concentration values measured using methods other than Method 25D may be corrected to estimate the values that would have been measured if Method 25D had been used; and 2) the measured VO concentration of a waste can be adjusted to exclude the portion of the total VO concentration that is contributed by compounds with Henry's law constants below a specified value. The mechanics of making these two corrections will be explained in the session.

G. Waste Determination Case Study **[30]**

This case study will demonstrate procedures that can be used in waste determinations involving streams with multiple components with a variety of volatilities. The solution will involve sampling and analyses for batch wastes, checking for contributions of relatively nonvolatile components to VO concentration determinations, and final computation of average VO concentration to compare to the 500 ppmw action level.

For this session, the case study will be distributed to attendees prior to the session, and the session moderator will use the session time to conduct a step-by-step explanation of the solution.

III. Vapor Pressure **[20]**

A. Subpart CC Requirements
B. Method 25E
C. API Method 2517
D. ASTM Method 2879-92

The control level applicable to a tank required to use controls under subpart CC is determined by the tank design capacity and the maximum organic vapor pressure of the material in the tank; ranges of capacity and vapor limits have been established for tanks in the rule. If an owner or operator wishes to use Level 1 controls on a tank, then the vapor pressure of the waste must be known. The details and various method available to the owner or operator to make a vapor determination will be reviewed in this session.

IV. Leak Testing **[25]**

A. Subpart AA, BB, and CC Requirements
B. Method 21

Within the provisions of subparts AA, BB, and CC, there are various provisions that require equipment leak monitoring, or require equipment to operate with "no detectable emissions," as defined by a leak test. The specified method for conducting these types of inspections is use of Method 21. This session will review those provisions of the rules that require monitoring with Method 21, the Method 21 monitoring protocol, instruments and their operation, field monitoring concerns, and a comparison of available instruments.

V. Vapor Tightness **[15]**

A. Subpart CC Requirements
B. Method 27
C. DOT vapor tightness test

The subpart CC rules require that Level 2 containers operate with no detectable emissions. In addition to Method 21, the above listed methods may be used to demonstrate that a tank truck or rail car meets the vapor tightness requirements of the rule. The two methods will be reviewed in this session.

VI. Biodegradation Rate Overview **[20]**

A. Subpart CC requirements
B. Method 304A
C. Method 304B

Under the subpart CC rules, air emission controls are no longer required for waste management units receiving treated hazardous wastes, including biological treatment units, where the wastes have been treated to meet criteria specified in the rule. The two options for bio-treatment units involve calculation of the fraction biodegraded value, F_{bio}. The EPA Methods 304A and 304B in appendix C of 40 CFR part 63 can be used for this determination. This session will briefly discuss these two alternative methods which are designed to determine biodegradation rates of organic compounds in activated sludge processes.

EPA Region II
Seminar of RCRA Air Rule Test Methods

Agenda*

8:45 AM	Opening Remarks		
9:00 AM	I.	Introduction — RCRA Air Rule Requirements	
	II.	Volatile Organic Concentration	
10:00 AM		A.	Subpart CC Waste Determination/Sampling Requirements
10:20 AM	Break		
10:35 AM		B.	Method 25D
10:55 AM		C.	Other EPA Methods
11:40 AM		D.	Use of Other EPA Methods
11:50 AM		E.	Use of Non-EPA Methods
12:00 PM	Lunch		
1:30 PM		F.	Method 25D Correction Factors
1:45 PM		G.	Waste Determination Case Study
2:15 PM	III.	Vapor Pressure	
2:35 PM	IV.	Leak Testing	
3:00 PM	Break		
3:15 PM	V.	Vapor Tightness	
3:30 PM	VI.	Biodegradation Rate Overview	
4:00 PM	For Further Information . . .		
4:15 PM	Adjourn		

** All times for the start of each session are approximate.*

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